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10/065,680	11/08/2002	Stuart A. Kingsley	D597.Con	9279

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EXAMINER
NGUYEN, VINH P

ART UNIT	PAPER NUMBER
2829	

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Appli ation No. 10/065,680	Applicant(s) KINGSLEY ET AL.
	Examiner VINH P NGUYEN	Art Unit 2829

-- The MAILING DATE of this communication app ars on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 November 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *5-7 and 9* is/are allowed.

6)☒ Claim(s) *1-4,8 and 11-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2-3* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1. The abstract of the disclosure is objected to because legal phraseology such as "comprises" is used . Correction is required. See MPEP § 608.01(b).

2. Claims 1 and 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear what is meant by "means of electrodes" and what "means of electrodes" represents. Is it shown in any of drawings? Is "means of electrodes" the same as "electrodes (142,35,142',35') ?

In claim 10, it appears that the scope of this claim is incomplete since the output voltage is corrected by both frequency correction factor and voltage correction factor but not by a single voltage correction factor from a voltage correction table.

In claim 11, it appears that the scope of this claim is incomplete since the output voltage is corrected by both frequency correction factor and voltage correction factor but not by a single frequency correction factor from a frequency correction table.

The dependent claims not specifically address share the same indefiniteness as they depend from rejected base claims.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Booth et al (Pat # 5,004,314).

As to claim 16, Booth et al disclose an optical signal modulation device having an input guide (8) for receiving light from a light source (not shown), first and second wave guide legs (1,2) divided from the input wave guide (8) for modulating the input light from the light source and an output wave guide (12). Since there is a biasing potential (v1 or V2) applied to one of the first and second waveguide legs (1,2) therefore it appears that the optical signal modulation device of Booth et al operating as a square law device.

As to claim 18, it appears that there is a biasing potential (V1 or V2) applied to one of the first and second waveguide legs (1,2).

5. Claims 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (Pat # 4,515,430).

As to claim 16, Johnson disclose an integrated optical transducer as shown in figure 3 having an input wave guide for receiving light from a light source (not shown), first and second waveguide legs (14,16) divided from the input waveguide for modulating the light and output guide combining the first and second legs for providing a modulated light output. It appears that

the device of Johnson is operated as a square law device.

As to claims 17 and 19, it appears that the first waveguide leg (16) is longer than the second waveguide leg (14).

As to claim 18, it appears that there is a biasing potential (V1 or V2) applied to one of the first and second waveguide legs (14,16).

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1 and 8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,479,979 in view of Johnson (Pat # 4,515,430).

As to claims 1,8, Claim1 of U.S. Patent No. 6,479,979 discloses a) an electric field to light to voltage converter comprises: a light source, an electro optic material for receiving light from the light source, for modulating said light and providing a modulated light output, an electric field applied to said electro-optic crystal, b) an optical receiver for receiving and converting said modulated output light from electro optic material to a first voltage that is proportional to a square of said electric field applied to said electro optic material, c) an averager circuit for receiving said first voltage and providing a second voltage that is proportional to the average of said square of said electric field over a period of time and d) an inverse ratiometric circuit for receiving said second voltage from said averager circuit and returning a third voltage that is an inverse voltage of said second voltage to said electric field to light to voltage converter to produce an output voltage that is the root mean square voltage of said applied electric field. It is noted that claim 1 of U.S. Patent No. 6,479,979 does not disclose a biased voltage applied to said electro optic material and means of electrodes formed on said electro optic material.

However, Johnson teach that it would have been well known to provide electrodes (24,26) to an electro optic material and to apply electric field through those electrodes. It would have been obvious for one of ordinary skill in the art to provide electrodes on electro optic material so that an electric field is introduced into the electro optic material through the electrodes.

Claim 1 of U.S. Patent No. 6,479,979 does not disclose an electro optica material having a Mach Zehner type interferometer with an input wave guide for receiving light from a light source , first and second waveguide legs divided from the input waveguide for modulating the light and output guide combining the first and second legs for providing a modulated light output, a biasing potential (V1 or V2) applied to one of the first and second waveguide legs (14,16) and the first waveguide leg (16) is longer than the second waveguide leg (14). As to claims 13-15, Johnson discloses an integrated optical transducer as shown in figure 3 having an input wave guide for receiving light from a light source (not shown), first and second waveguide legs (14,16) divided from the input waveguide for modulating the light and output guide combining the first and second legs for providing a modulated light output. It appears that the device of Johnson is operated as a square law device. It appears that the first waveguide leg (16) is longer than the second waveguide leg (14) and there is a biasing potential (V1 or V2) applied to one of the first and second waveguide legs (14,16). It would have been obvious for one of ordinary skill in the art to provide a Mach Zehner type interferometer as an electro optic material in claim 1 of U.S. Patent No. 6,479,979 so that the light signal in the interferometer is

modulated in order to reduce the noise signal within the light signal.

8. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

9. Claims 2-4 and 12 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1,5-6 of prior U.S. Patent No. 6,479,979. This is a double patenting rejection.

10. Claims 5-7 are allowable since the prior art does not disclose an opto- electric device for measuring the root mean square value of an alternative current voltage having an environmental container for the electro optic material & a temperature control unit for maintaining a set temperature within the container and an ac calibration source with analog to digital convesion for applying a known ac voltage at a known frequency to the electro optic material.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Johnson et al (Pat # 5,199,086) disclose an electro optic system.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P. NGUYEN whose telephone number is (703) 305-4914. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.

VINH P. NGUYEN
PRIMARY EXAMINER
ART UNIT 2829
04/30/03